

## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Robert Kuremuchi Examiner #: 65022 Date: 2/25/02  
 Art Unit: 1763 Phone Number 308-1091 Serial Number: c9/824965  
 Mail Box and Bldg/Room Location: CPB 3-10204 Results Format Preferred (circle):  PAPER  DISK  E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Ex. Tagatagen search patent number 6,007,622 12/26/99

Inventors: Tomohiro Kawase  
Masumi Tatsumi

No Litigation Found

\*\*\*\*\*  
STAFF USE ONLY

Searcher: Melkism

Searcher Phone #: 308-4483

Searcher Location: 2/25/02

Date Searcher Picked Up: 2/25/02

Date Completed: 2/25/02

Searcher Prep & Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: P

## Type of Search

## Vendors and cost where applicable

NA Sequence (#)	STN
AA Sequence (#)	Dialog <u>31.88</u>
Structure (#)	Questel/Orbit <u>31.88</u>
Bibliographic	Dr. Link
Litigation	Lexis/Nexis <u>40.00</u>
Fulltext	Sequence Systems
Patent Family	WWW/Internet
Other	Other (specify)

?US6007622/PN

\*\* SS 1: Results 1

Search statement 2

?PRT FULL NONSTOP LEGALALL

1/1 PLUSPAT - (C) QUESTEL-ORBIT  
PN - US6007622 A 19991228 [US6007622]  
TI - (A) Method of preparing group III-V compound semiconductor crystal  
FA - (A) SUMITOMO ELECTRIC INDUSTRIES (JP)  
IN - (A) KAWASE TOMOHIRO (JP); TATSUMI MASAMI (JP)  
AP - US84312497 19970425 [1997US-0843124]  
PR - JP10700996 19960426 [1996JP-0107009]  
IC - (A) C30B-011/04  
EC - C30B-011/00 C30B-029:40  
- C30B-011/00 C30B-029:42  
PCL - ORIGINAL (O) : 117082000; CROSS-REFERENCE (X) : 117004000 117006000  
117007000 117083000 117953000  
DT - Corresponding document  
CT - US4999082; US5131975; US5515810; EP0529963; JP60-210599; JP01037833;  
JP64-79087; JP02034597; JP2-74597; JP3-252399  
- Journal of Japanese Association of Crystal Growth, Y. Okabe et al.  
- Undoped Semi-Insulating GaAs Single Crystals Grown by VGF Method, vol.  
18, 1991, pp. 88-95.

"Low dislocation density and low residual strain semi insulating GaAs  
grown by vertical boat method". Kawase, T. (Apr. 1996).

STG - (A) United States patent  
AB - A method is provided for preparing, with high reproducibility, a  
carbon-doped group III-V compound semiconductor crystal having  
favorable electrical characteristics and having impurities removed  
therefrom, and in which the amount of doped carbon can be adjusted  
easily during crystal growth. This method includes the steps of:  
filling a crucible with compound raw material, solid carbon, and boron  
oxide; sealing the filled crucible gas impermeable material; heating  
and melting the compound raw material under the sealed state in the  
airtight vessel; and solidifying the melted compound raw material to  
grow a carbon-doped compound semiconductor crystal.

1/1 LGST - (C) LEGSTAT  
PN - US 6007622 [US6007622]  
AP - US 843124/97 19970425 [1997US-0843124]  
DT - US-P  
ACT - 19970425 US/AE-A  
APPLICATION DATA (PATENT)  
{US 843124/97 19970425 [1997US-0843124]}  
- 19991228 US/A  
PATENT  
- 20010717 US/RF  
REISSUE APPLICATION FILED  
20010403

- 20011127 US/CC  
CERTIFICATE OF CORRECTION  
UP - 2001-51

1/1 CRXX - (C) CLAIMS/RRX  
PN - 6,007,622 A 19991228 [US6007622]  
PA - Sumitomo Electric Industries Ltd JP  
ACT - 20010403 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20010717  
FEISUUE REQUEST NUMBER: 09/824965  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 1765

Reissue Patent Number:

- 20011218 CERTIFICATE OF CORRECTION

1/2 PAST - (C) PAST  
AN - 200151-000601  
PN - 6007622 A [US6007622]  
OG - 2001-12-18  
ACT - CERTIFICATE OF COFRECTION

2/2 PAST - (C) PAST  
AN - 200129-001177  
PN - 6007622 A [US6007622]  
OG - 2001-07-17  
ACT - REISSUE APPLICATION FILED

Search statement 2

?FILE INPADOC

PLUSPAT - Time in minutes : 0,32  
The cost estimation below is based on Questel's  
standard price list  
Estimated cost : 2.02 USD  
Records displayed and billed : 1  
Estimated cost : 1.10 USD  
Cost estimated for the last database search : 3.12 USD  
Estimated total session cost : 3.70 USD

LGST - Time in minutes : 0,07  
The cost estimation below is based on Questel's  
standard price list  
Estimated cost : 0.07 USD  
Records displayed and billed : 1  
Estimated cost : 0.57 USD  
Cost estimated for the last database search : 0.64 USD  
Estimated total session cost : 4.34 USD

CRXX - Time in minutes : 0,09

The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.13 USD
Records displayed and billed :	1
Estimated cost :	5.00 USD
Cost estimated for the last database search :	5.13 USD
Estimated total session cost :	9.47 USD

PAST - Time in minutes : 0,06  
The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.11 USD
Records displayed and billed :	2
Estimated cost :	11.22 USD
Cost estimated for the last database search :	11.33 USD
Estimated total session cost :	20.80 USD

LITA - Time in minutes : 0,01  
The cost estimation below is based on Questel's  
standard price list

Estimated cost :	0.01 USD
Cost estimated for the last database search :	0.01 USD
Estimated total session cost :	20.81 USD

Selected file: INPADOC

You are now connected to INPADOC  
Covers 1968/1973 thru weekly updates (2002-07)  
For information on content, ..INFO INPD.

Search statement 1

?FAM US6007622/PN

1 Patent Groups  
\*\* SS 1: Results 4

Search statement 2

?FAMSTATE NONSTOP

1/4 INPADOC - (C) INPADOC  
PN - EP 803593 A1 19971029 [EP-803593]  
TI - METHOD OF PREPARING GROUP III-V COMPOUND SEMICONDUCTOR CRYSTAL  
LA - ENG  
IN - KAWASA TOMOHIRO [JP]; TATSUMI MASAMI [JP]  
PA - SUMITOMO ELECTRIC INDUSTRIES [JP]  
AP - EP 97106815/97-A 19970424 [1997EP-0106815]  
PR - JP 107009/96-A 19960426 [1996JP-0107009]  
IC - C30B-011/00; C30B-029/40; C30B-029/42  
DS - DE\* FR\* GB\*

1/1 LEGALI - (C) LEGSTAT  
PN - EP 803593 [EP-803593]  
AP - EP 97106815/97 19970424 [1997EP-0106815]  
DT - EP-P

ACTE- 19970424 EP/AE-A

EP-APPLICATION

{EP 97106815/97 19970424 [1997EP-0106815]}

- 19971029 EP/AK-A1 [+]
- DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT: DE FR GB
- 19971029 EP/A1 [+]
- PUBLICATION OF APPLICATION WITH SEARCH REPORT
- 19971217 EP/17P [+]
- REQUEST FOR EXAMINATION FILED 971017
- 19991208 EP/17Q [+]
- FIRST EXAMINATION REPORT 19991026
- 20000112 EP/FIN1
- INVENTOR (CORFECTION)  
KAWASE, TOMOHIRO, SUMITOMO ELECTRIC IND., LTD. \* TATSUMI, MASAMI,  
SUMITOMO ELECTRIC IND., LTD.

UP - 2000-02

2/4 INPADOC - (C) INPADOC

PN - JP 3201305 B1 20010820 [JP3201305]  
 AP - JP 106115/97-A 19970423 [1997JP-0106115]  
 PR - JP 106115/97-A 19970423 [1997JP-0106115]  
 - JP 107009/96-A 19960426 [1996JP-0107009]  
 IC - C30B-029/40; C30B-011/00; C30B-029/42

3/4 INPADOC - (C) INPADOC

PN - JP 10036197 A2 19980210 [JP10036197]  
 TI - PRODUCTION OF III-V COMPOUND SEMICONDUCTOR CRYSTAL  
 IN - KAWASE TOMOHIRO; TATSUMI MASAMI  
 PA - SUMITOMO ELECTRIC INDUSTRIES  
 AP - JP 106115/97-A 19970423 [1997JP-0106115]  
 PR - JP 106115/97-A 19970423 [1997JP-0106115]  
 - JP 107009/96-A 19960426 [1996JP-0107009]  
 IC - C30B-029/40; C30B-011/00; C30B-029/42

4/4 INPADOC - (C) INPADOC

PN - US 6007622 A 19991223 [US6007622]  
 TI - METHOD OF PREPARING GROUP III-V COMPOUND SEMICONDUCTOR CRYSTAL  
 IN - KAWASE TOMOHIRO [JP]; TATSUMI MASAMI [JP]  
 FA - SUMITOMO ELECTRIC INDUSTRIES [JP]  
 AP - US 843124/97-A 19970425 [1997US-0843124]  
 PR - JP 107009/96-A 19960426 [1996JP-0107009]  
 IC - C30B-011/04

1/1 LEGALI - (C) LEGSTAT

PN - US 6007622 [US6007622]  
 AP - US 843124/97 19970425 [1997US-0843124]  
 DT - US-P  
 ACTE- 19970425 US/AE-A  
 AFFLICATION DATA (PATENT)  
 {US 843124/97 19970425 [1997US-0843124]}  
 - 19991218 US/A  
 PATENT

- 20010717 US/RF  
REISSUE APPLICATION FILED  
20010403  
- 20011127 US/CC  
CERTIFICATE OF CORRECTION  
UP - 2001-51

Search statement 2

PATNO IS 6007622

DATE: FEBRUARY 25, 2002  
LIBRARY: PATENT  
FILE: ALL

Your search request is:  
PATNO IS 6007622

Number of PATENTS found with your search request through:  
LEVEL 1... 1

Your search request has found 1 PATENT through Level 1.  
To DISPLAY this PATENT press either the KWIC, FULL, CITE or SEGMTS key.  
To MODIFY your search request, press the M key (for MODIFY) and then the ENTER key.

For further explanation, press the H key (for HELP) and then the ENTER key.

LEVEL 1 - 1 PATENT

1. 6,007,622, Dec. 28, 1999, Method of preparing group III-V compound semiconductor crystal, Kawase, Tomohiro, Hyogo, Japan Tatsumi, Masami, Hyogo, Japan, Sumitomo Electric Industries, Ltd., Osaka, Japan (03)

CORE TERMS: carbon, crystal, compound, boron, oxide, semiconductor, raw material, preparing, crucible, carbon-doped...

6,007,622

<=2> GET 1st DRAWING SHEET OF 7

Dec. 28, 1999

Method of preparing group III-V compound semiconductor  
crystal

REISSUE: Reissue Application filed Apr. 3, 2001 (O.G. Jul. 17, 2001) Ex. Gp.:  
1765; Re. S.N. 09/824,965

CERTCORR: Nov. 27, 2001 a Certificate of Correction was issued for this patent  
(O.G. Dec. 18, 2001)

CORE TERMS: carbon, crystal, compound, boron, oxide, semiconductor, raw  
material, preparing, crucible, carbon-doped...

6007622 OR 6,007,622

Your search request has found no ITEMS.

To edit the above request, use the arrow keys. Be sure to move the cursor to the end of the request before you enter it.

To enter a new search request, type it and press the ENTER key.

What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.

6007622 OR 6,007,622

Your search request has found no CASES.

To edit the above request, use the arrow keys. Be sure to move the cursor to the end of the request before you enter it.

To enter a new search request, type it and press the ENTER key.

What you enter will be Search Level 1.

For further explanation, press the H key (for HELP) and then the ENTER key.